

What is claimed is:

1. A method providing an interface to a storage object, comprising;
acquiring an identifier for the storage object;
5 requesting a map for the storage object;
establishing a configuration identifier associated with the map; and
using the identifier, the map, and the configuration identifier with one or more
accesses to the storage object.
- 10 2. The method of claim 1, wherein in requesting the map, the map represents a
logical representation of the storage object in a first storage environment.
3. The method of claim 2, wherein the use of the identifier, the map, and the
configuration identifier occurs in a second storage environment.
- 15 4. The method of claim 1, wherein after establishing the configuration
identifier, the map is modified and a subsequent configuration identifier is
established for the modified map.
- 20 5. The method of claim 4, wherein the use of the identifier, the map, and the
configuration identifier is altered when the subsequent configuration identifier is
established.
6. The method of claim 1, wherein each of the method steps are represented as
25 independent functions in a dynamic linked library.
7. The method of claim 1, wherein each of the method steps are represented as
independent functions in a shared library.

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8. An application programming interface (API) library, comprising:
an establish map module operable to generate a persistent data structure of a storage
object housed within a first storage environment;
an assign configuration identifier module operable to associate with the persistent
5 data structure and notify a client module when the persistent data structure is
modified; and
an alternate map module activated to generate one or more alternate persistent data
structures for the storage object when the storage object is replicated within the first
storage environment.

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9. The API library of claim 8, wherein the library further comprises an obtain
storage object identifier module operable to associate a unique identifier handle with
the storage object for use by the client module.

15 10. The API library of claim 8, wherein the library further comprises a retrieve
extent module operable to provide one or more extents associated with the storage
object.

11. The API library of claim 8, wherein the extent module is configurable to
20 provide a defined number of the extents.

12. The API library of claim 8, wherein the library is provided as a dynamic
linked library.

25 13. The API library of claim 8, wherein the library is provided as a shared
library.

14. The API library of claim 8, wherein the client module executes in a second
storage environment different from the first storage environment.

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15. A storage object interface system, comprising:
an application programming interface (API) library having one or more
modules operable to map the storage object within a first storage environment and
provide notifications when one or more of the storage object's physical locations are
5 altered; and
a client module using one or more of the modules of the API library to
interface with the storage object.

16. The system of claim 15, wherein the API library includes a storage map
10 module and an assign configuration identifier module.

17. The system of claim 16, wherein the API library further includes an
alternative map module.

18. The system of claim 15, wherein the client module executes in a second
storage environment.

19. The system of claim 15, wherein the API library executes in the first and
second storage environments.

20. The system of claim 15, wherein the API library is a dynamic linked library.

21. The system of claim 15, wherein the API library is a shared library.

22. An apparatus to interface with a storage object, comprising:
an application programming interface (API) library providing stable access
to the storage object located in a first storage environment;
a client module linked to the API library, wherein the client module is
executed in a second storage environment; and

wherein the client module is notified by a notification module residing within the API library when one or more of the physical locations associated with the storage object change in the first storage environment.

5 23. The apparatus of claim 22, wherein the apparatus is used to interface a first file system associated with the storage object in the first storage environment to a second file system associated with the client module in the second storage environment.

10 24. The apparatus of claim 2, wherein the first storage environment resides within a first operating system and the second storage environment resides in a second operating system.